JVC

SERVICE MANUAL

MODEL
A-S5
STEREO INTEGRATED AMPLIFIER

No. 2462
NOV. 1978

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Warning! When replacing the parts marked with ⚠ , be sure to use the designated parts to ensure safety.

1. Specifications

Power Amplifier Section

Output Power (both channels driven):	30 watts per channel, min. RMS into 8 ohms, from 20Hz – 20k Hz with no more than 0.06% total harmonic distortion 31 watts per channel into 8 ohms at 1kHz. THD = 0.06%
Total Harmonic Distortion (at 30W): (both channels driven)	0.03% at 1kHz
Intermodulation distortion:	0.06% at rated output
Load Impedance:	4Ω – 16Ω (SYSTEM-1 or SYSTEM-2) 8Ω – 16Ω (SYSTEM-1 and SYSTEM-2)
Damping Factor:	More than 50 at 8Ω (20Hz – 20kHz)

Pre-Amplifier Section

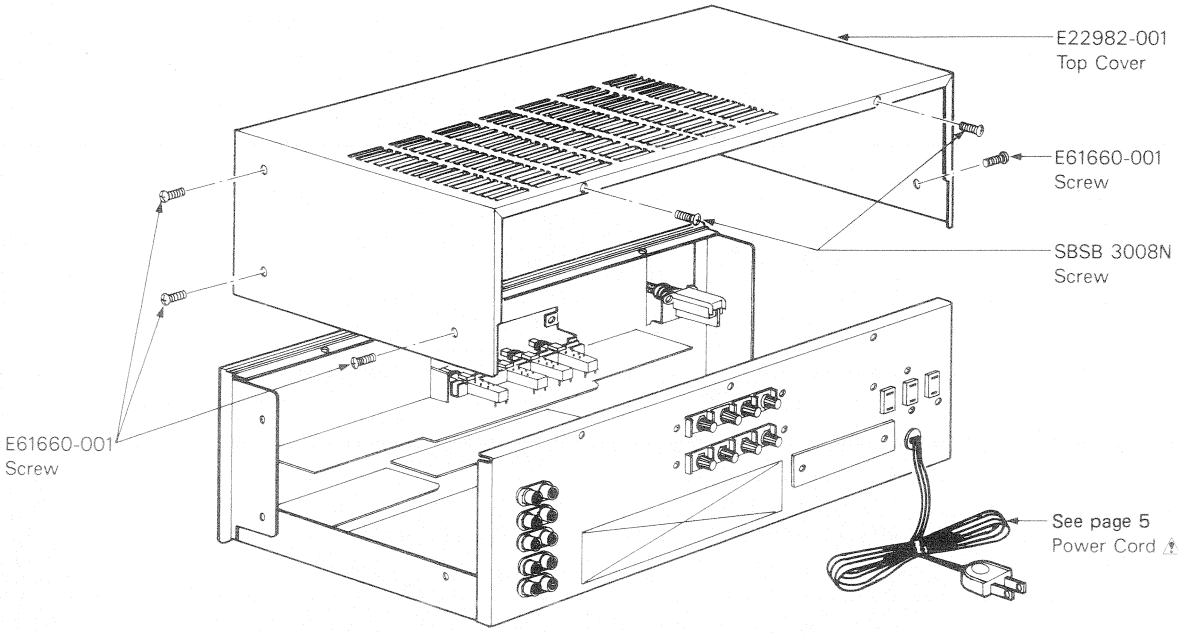
Input Sensitivity/Impedance:	PHONO 2.5mV/47kΩ AUX, TUNER, TAPE PLAY 150mV/40kΩ
Output Level:	TAPE REC.-1, -2 150mV
Phono Equalizer Deviation:	±0.5dB from RIAA curve (25Hz – 15kHz)
Phono Overload:	150mV (RMS) at 1kHz, 420mV (P-P)
Signal to Noise Ratio:	PHONO 65dB (RMS) aux 85dB (RMS)
Frequency Response:	AUX, TUNER, TAPE PLAY 20Hz – 40kHz ± 1dB
Loudness Control: (at –30dB Volume Control)	+6dB at 100Hz +4dB at 10kHz
Tone Controls:	Bass ±8dB at 100Hz Treble ±9dB at 10kHz
Dimensions:	5-7/8"(H) x 16-1/2"(W) x 10-7/16"(D) (14.9cm x 42cm x 26.4cm)
Weight:	12.1 lbs. (5.5kg)

	U.S.A. Canada	U.K., Europe Australia Other countries
Power Source	AC 120V, 60Hz	AC110/120/220/240V~ 50/60Hz
Power consumption	140 watts	300 watts

Design and specifications subject to change without notice.

2. Removal Procedures

2-(1) Top Cover



⚠ : Safety Parts

Fig. 1

2-(2) Removing of P.C. Board Ass'y

Precaution:
To protect electric circuit or personnel from high current, 2 electrolytic capacitors should be discharged by using 100 ohms, 1W resistor before taking the following procedure:

Procedures:
1. Disconnect AC plug at first.
2. Remove 4 screws (Item No. 1 – 4).
3. Slightly pull the rear panel together with P.C.Board.
4. Carefully place them as shown in Fig. 2-A.
5. When replacing P.C.Board to the chassis, be sure that the P.C.Board is locked into the both fasteners properly. Refer to Fig. 2-B.

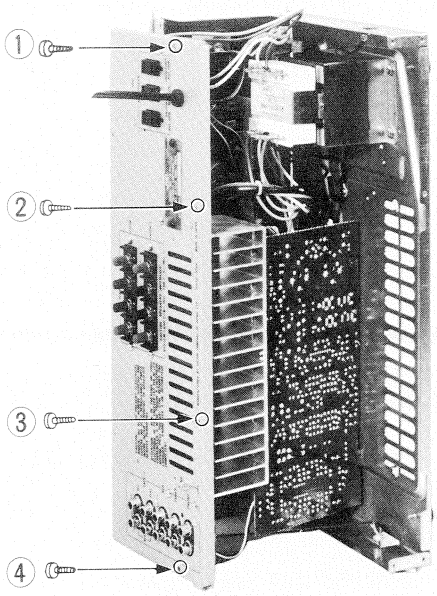


Fig. 2-A

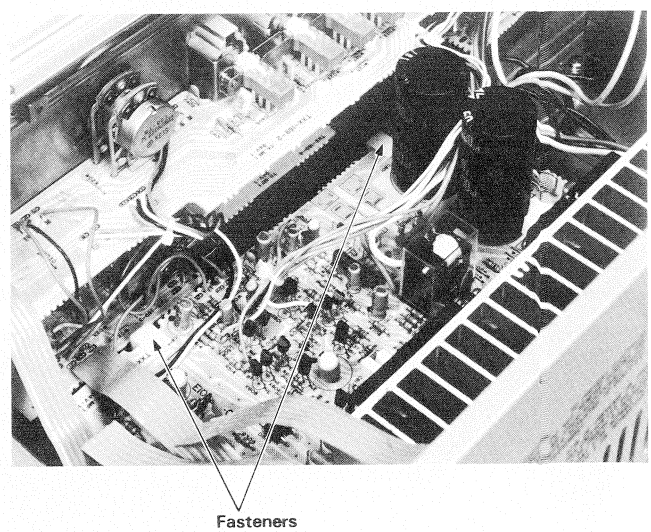
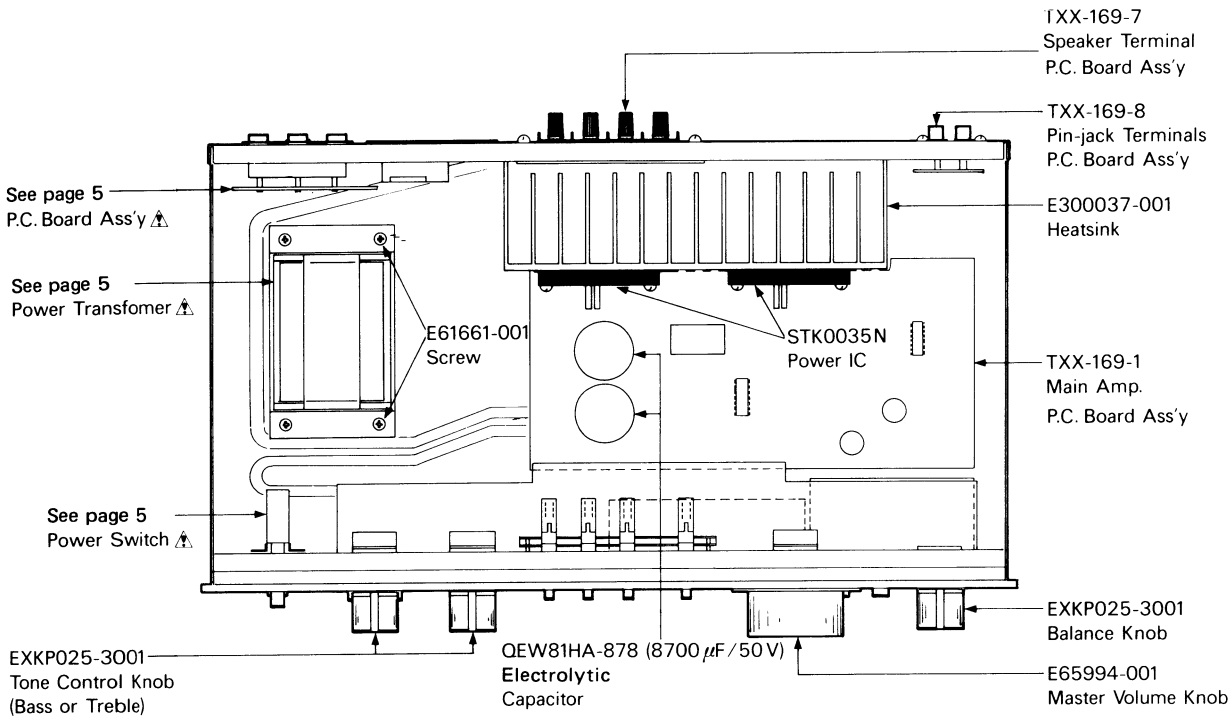


Fig. 2-B

3. Main Parts Location



⚠ : Safety Parts

Fig. 3

4. Exploded Views and Part Numbers

4-(1) Front Panel

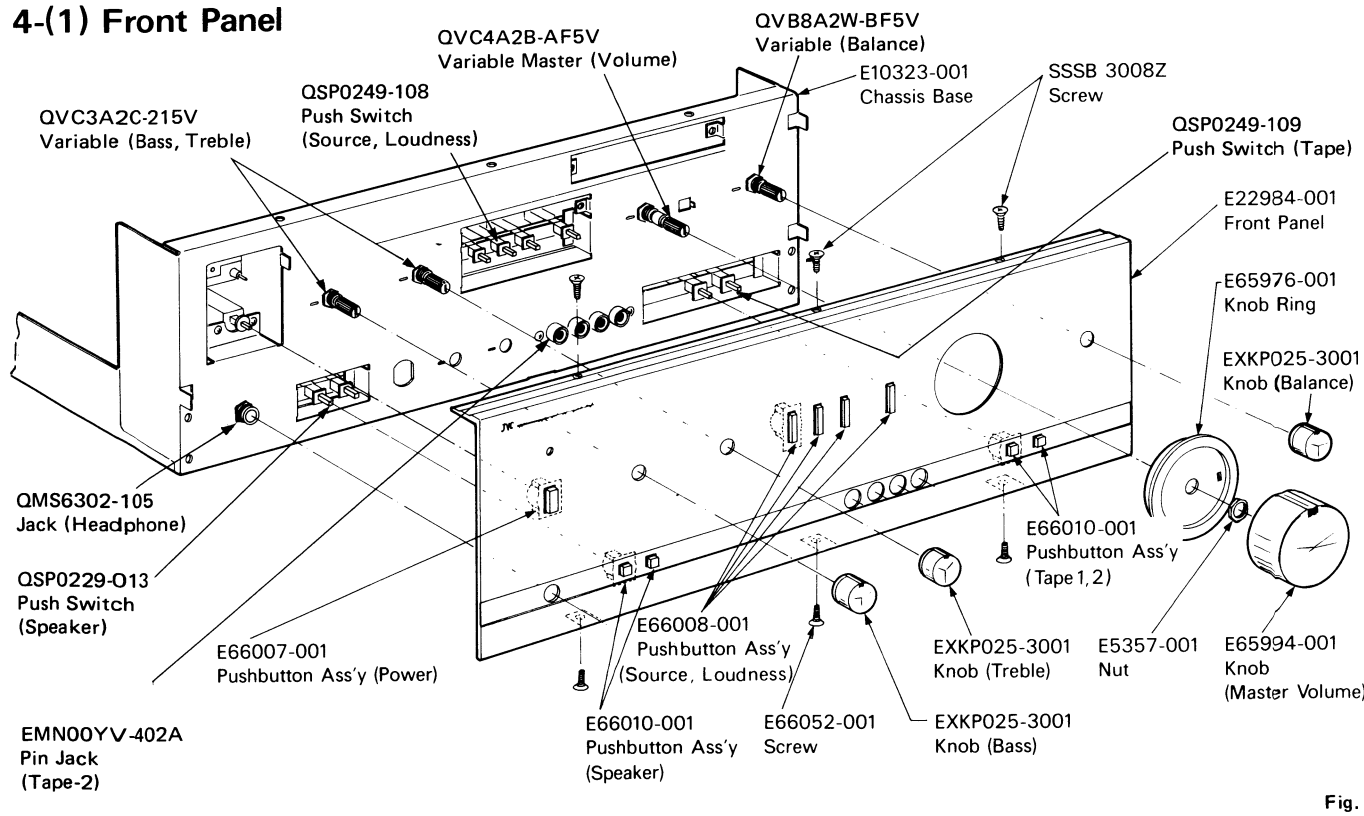
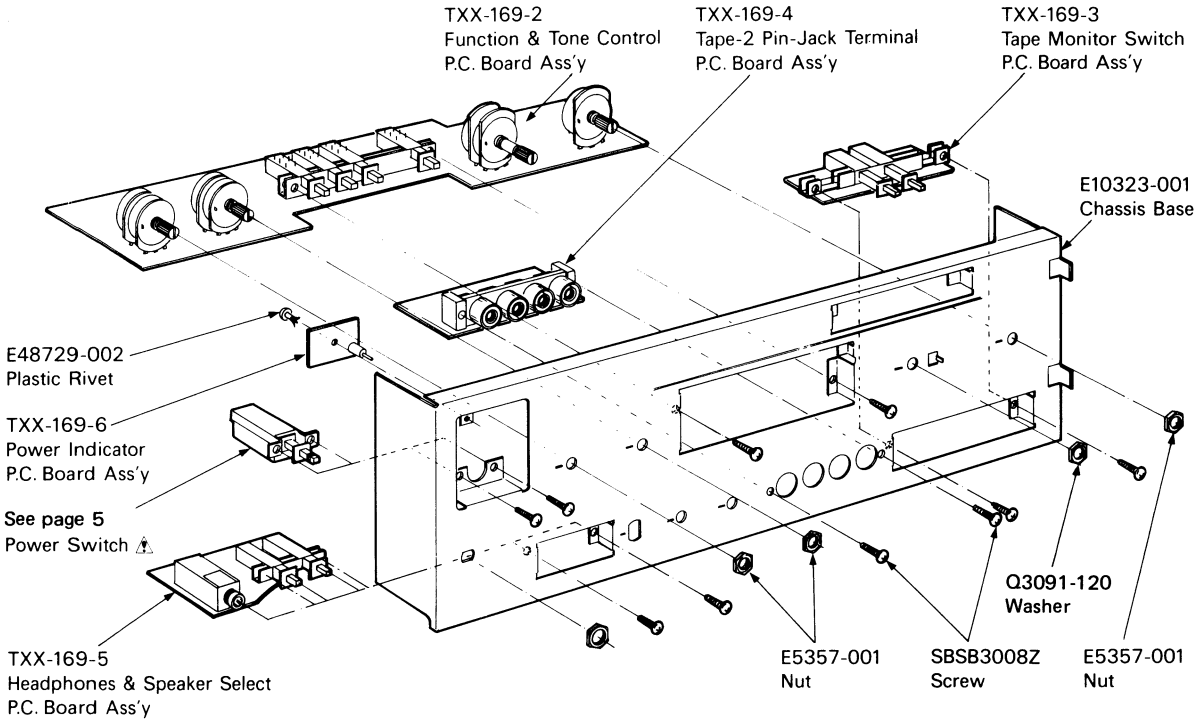


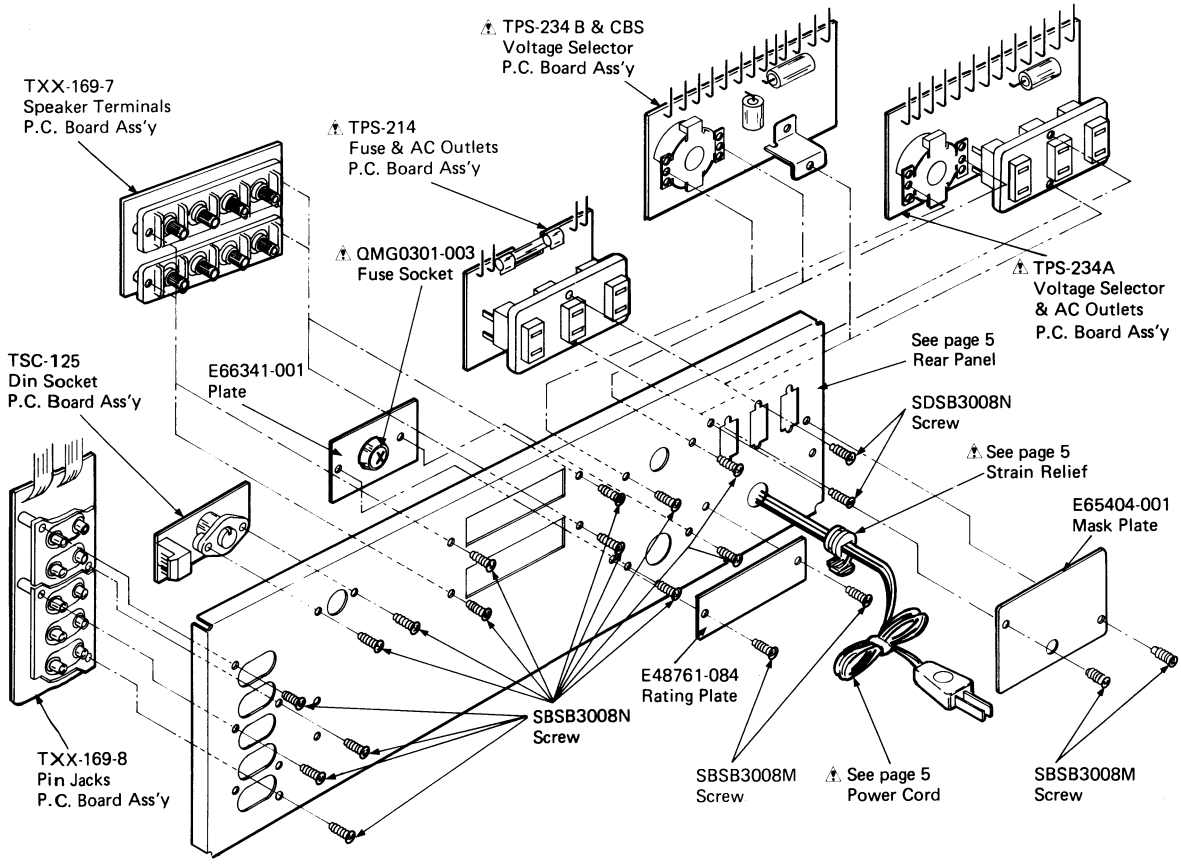
Fig. 4



⚠ : Safety Parts

Fig. 5

4-(2) Rear Panel



⚠ : Safety Parts

Fig. 6

4-(3) Chassis Base

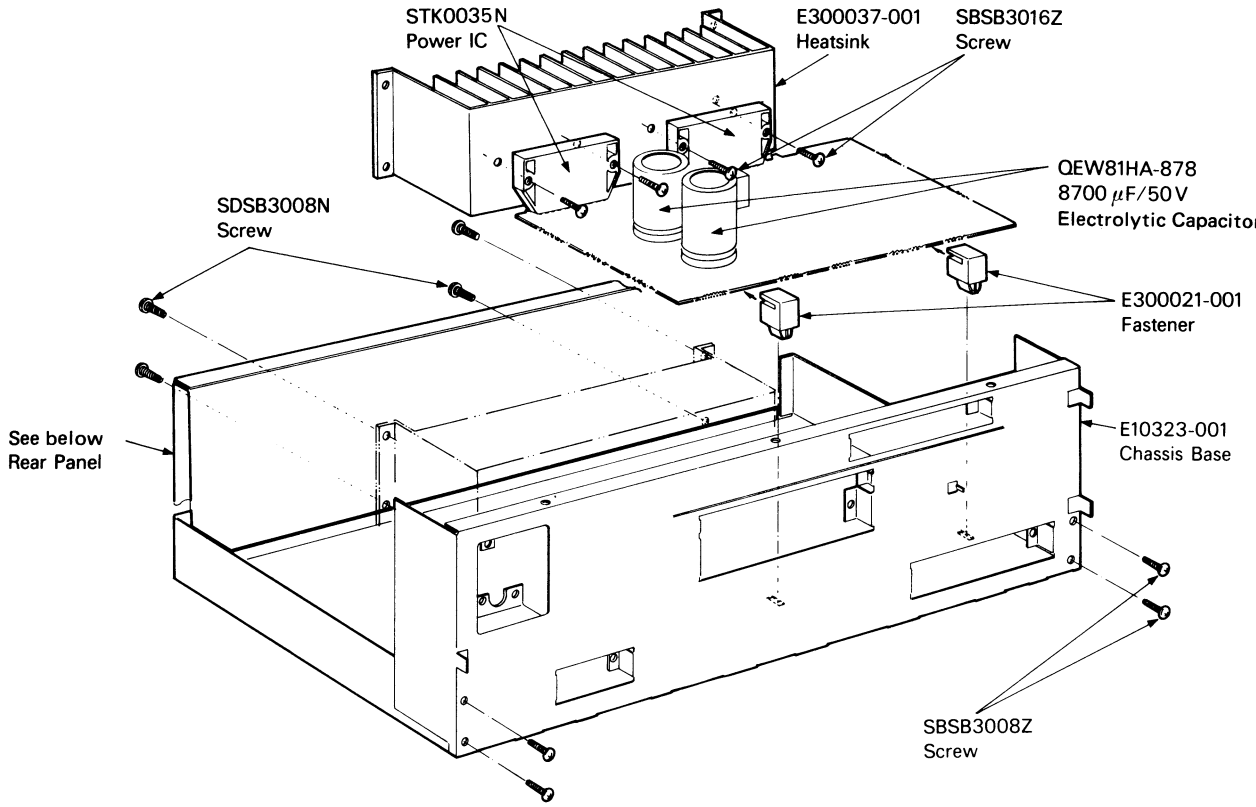


Fig. 7

4-(4) Parts List with Specified Numbers for Designated Areas

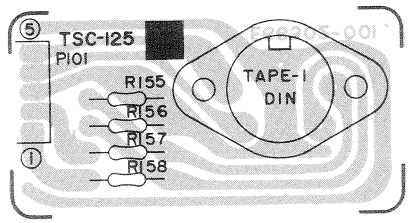
	U.S.A.	Canada	U.K.	Europe	Australia	Other countries
Power Cord ⚠	QMP1200-200	QMP1200-200	QMP9017-008BS	QMP3900-200	QMP2560-244	QMP7600-250
Power Switch ⚠	QSP1110-301	QSP1110-301	QSP2110-004BS	QSP2110-004	QSP2110-004	QSP2110-004
Strain Relief ⚠	QHS3876-162	QHS3876-162	QHS3876-162BS	QHS3876-162	QHS3876-162	QHS3876-162
Power Transformer ⚠	E03077-38B	E03077-38B	E03077-38CBS	E03077-38C	E03077-38C	E03077-38C
P.C. Board Ass'y	TXX-169A	TXX-169A	TXX-169B	TXX-169B	TXX-169B	TXX-169B
P.C. Board Ass'y ⚠	TPS-214A	TPS-214B	TPS-234CBS	TPS-234B	TPS-234B	TPS-234A
Fuse (Primary) ⚠	QMF61U1-3R0	QMF61U1-3R0	QMF51A2-1R0LBS	QMF51A2-1R0L	QMF51A2-1R0L	QMF51A2-1R0L QMF51A2-2R0L
(Secondary) ⚠	–	–	QMF51A2-4R0SBS	QMF51A2-4R0S	QMF51A2-4R0S	QMF51A2-4R0S
P.C. Board Ass'y (Din)	–	–	TSC-125	TSC-125	TSC-125	TSC-125
Fuse Socket ⚠	–	–	QMG0301-003BS	QMG0301-003	QMG0301-003	QMG0301-003
Mask Plate	–	–	E65494-001	E65494-001	E65494-001	–
Rear Panel	E22977-001	E22977-001	E22977-007	E22977-007	E22977-007	E22977-007
Plate	–	–	E66341-001	E66341-001	E66341-001	E66341-001

⚠ : Safety Parts

5. Printed Circuit Board Ass'y and Parts List

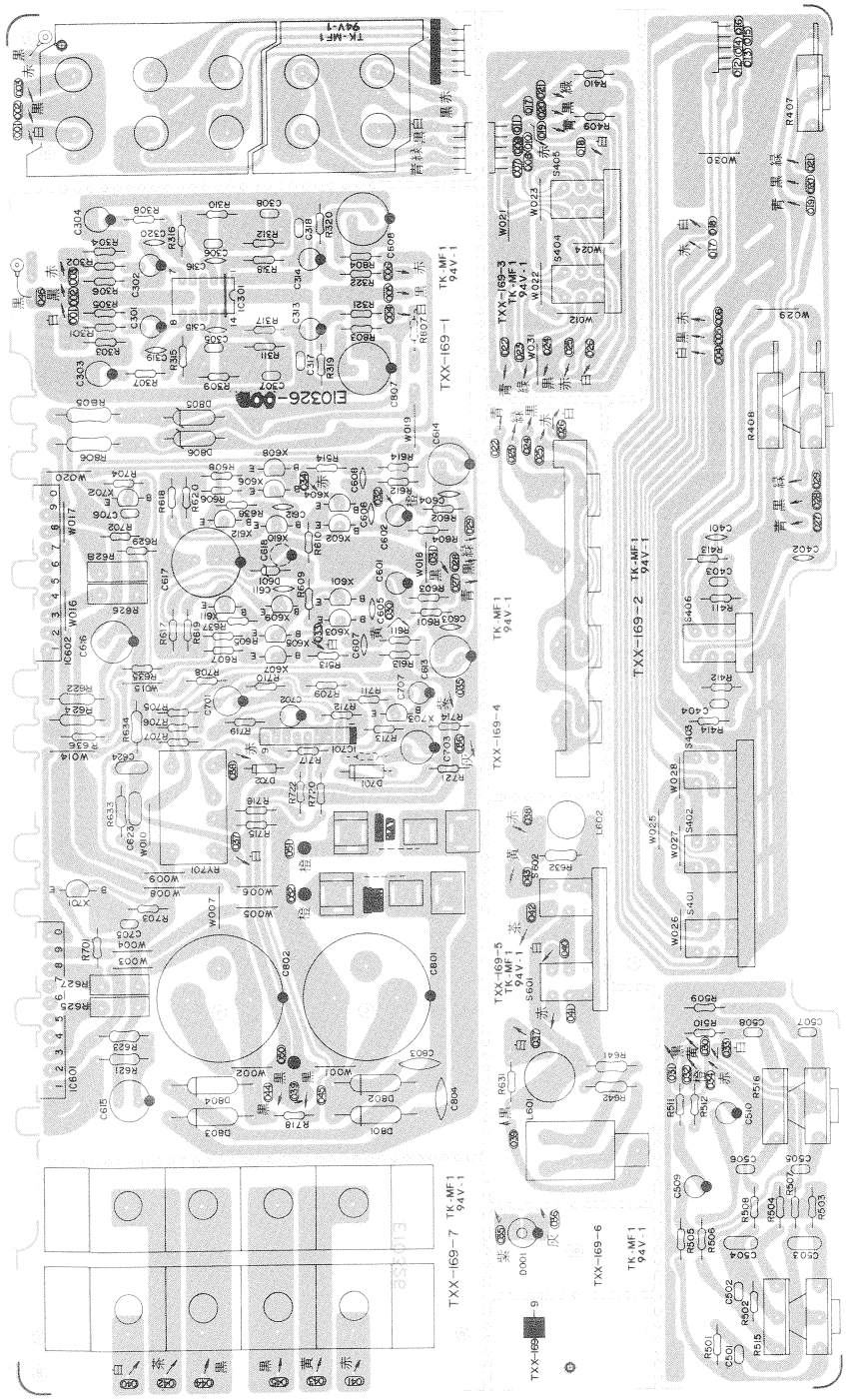
5-(1) TSC-125 DIN Socket P.C. Board Ass'y

(Unused for U. S. A. & Canada.)

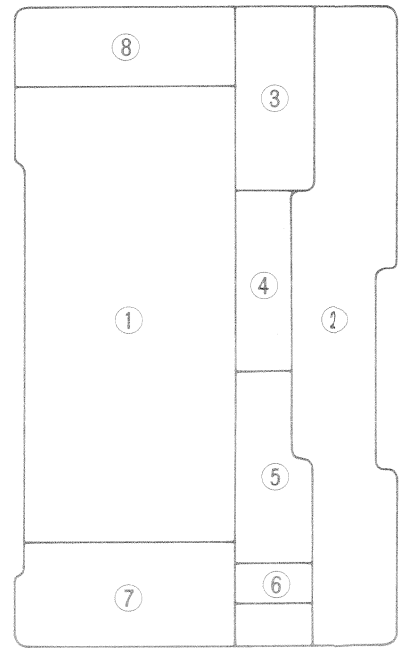


Item no.	Part no.	Rating		Description
R155	QRD141J-823S	82kΩ	1/4W	Carbon
R156	〃	〃	〃	〃
R157	QRD141J-334S	330kΩ	〃	〃
R158	〃	〃	〃	〃
	QMV5009-005			Plug
	E03623-003			Din socket

5-(2) TXX-169 Split-P.C. Board Ass'y



Each Individual P.C.Board Ass'y Locations.



① TXX-169-1: Main Amp. P.C.Board Ass'y
② TXX-169-2: Functions & Tone Controls P.C. Board Ass'y
③ TXX-169-3: Tape Monitor Switch P.C.Board Ass'y
④ TXX-169-4: Tape-2 Pin-jack P.C.Board Ass'y
⑤ TXX-169-5: Headphones & Speaker Select P.C. Board Ass'y
⑥ TXX-169-6: Power Indicator P.C.Board Ass'y
⑦ TXX-169-7: Speaker Terminal P.C.Board Ass'y
⑧ TXX-169-8: Pin-jack Terminal P.C.Board Ass'y

Fig. 9

Note:
The specific symbols ("赤" "黒" "白". . . etc) on a surface of above P.C.Board are actually unrelated to the repair service and are significant denotement in order to process the proper assembly of P.C.Board at the factory.

TXX-169 Split-P.C.Board Ass'y

Parts List

Transistors

Item no.	Part no.	Rating		Description	
		Pc	fT		Maker
X601	2SC1775AV(F1)	0.3 W	200MHz	Silicon	Hitachi
X602	2SC1775AV(F1)	"	"	"	"
X603	2SC1775AV(F1)	"	"	"	"
X604	2SC1775AV(F1)	"	"	"	"
X605	2SA872AV(E)	"	120MHz	"	"
X606	2SA872AV(E)	"	"	"	"
X607	2SA872AV(E)	"	"	"	"
X608	2SA872AV(E)	"	"	"	"
X609	2SA872AV(E)	"	"	"	"
X610	2SA872AV(E)	"	"	"	"
X611	2SC2229(Y)	3.0 W	"	"	Toshiba
X612	2SC2229(Y)	"	"	"	"
X701	2SC1775AV(F)	0.3 W	200MHz	"	Hitachi
X702	2SC1775AV(F)	"	"	"	"
X703	2SA872AV(E)	"	120MHz	"	"

Diodes

Item no.	Part no.	Rating	Description	
				Maker
D001	TLR206		LED	Toshiba
D601	WZ-071A		Zener	JRC
D701	ERB12-02RKL1		Silicon	Fuji
D702	1S2076-31		"	Hitachi
D801	ERC04-02AL		"	Fuji
D802	ERC04-02AL		"	"
D803	ERC04-02AL		"	"
D804	ERC04-02AL		"	"
D805	EQB01-15Z		Zener	"
D806	EQB01-15Z		"	"

Coils & Transformers

Item no.	Part no.	Rating	Description
L601	E04059-1R2	1.2 μH	Coil
L602	E04059-1R2	"	"

Integrated Circuits

Item no.	Part no.	Rating	Description	
		Pc		Maker
IC301	HA1452W	0.54 W	I.C.	Hitachi
IC601	STK0035N		" (Power)	Tokyo Sanyo
IC602	STK0035N		" (")	"
IC701	TA7317P	0.5 W	I.C.	Toshiba

Capacitors

Item no.	Part no.	Rating		Description
C301	QET51HR-475	4.7 μF	50 V	Electrolytic
C302	QET51HR-475	"	"	"
C303	QET51AR-476	47 μF	10 V	"
C304	QET51AR-476	"	"	"
C305	QFM31HJ-182	1800 pF	50 V	Mylar
C306	QFM31HJ-182	"	"	"
C307	QFM31HJ-682	6800 pF	"	"
C308	QFM31HJ-682	"	"	"
C313	QET51HR-475	4.7 μF	"	Electrolytic
C314	QET51HR-475	"	"	"
C315	QCS21HJ-151	150 pF	"	Ceramic
C316	QCS21HJ-151	"	"	"
C317	QFM31HK-332	3300 pF	"	Mylar

Capacitors

Item no.	Part no.	Rating		Description
C318	QFM31HK-332	3300 pF	50 V	Mylar
C319	QCS21HJ-101	100 pF	"	Ceramic
C320	QCS21HJ-101	"	"	"
C401	QCS21HJ-271	270pF	"	"
C402	QCS21HJ-271	"	"	"
C403	QFM31HK-153	0.015 μF	"	Mylar
C404	QFM31HK-153	"	"	"
C501	QFM31HK-333	0.033 μF	"	"
C502	QFM31HK-333	"	"	"
C503	QFM31HK-224	0.22 μF	"	"
C504	QFM31HK-224	"	"	"
C505	QFM31HK-222	2200 pF	"	"
C506	QFM31HK-222	"	"	"
C507	QFM31HK-223	0.022 μF	"	"
C508	QFM31HK-223	"	"	"
C509	QET51ER-106	10 μF	25 V	Electrolytic
C510	QET51ER-106	"	"	"
C601	QET51HR-225	2.2 μF	50 V	"
C602	QET51HR-225	"	"	"
C603	QCS21HJ-181	180 pF	"	Ceramic
C604	QCS21HJ-181	"	"	"
C605	QCS21HJ-101	100 pF	"	"
C606	QCS21HJ-101	"	"	"
C607	QCS21HJ-100	10 pF	"	"
C608	QCS21HJ-100	"	"	"
C611	QCS21HJ-470	47 pF	"	"
C612	QCS21HJ-470	"	"	"
C613	QET51ER-476	47 μF	25 V	Electrolytic
C614	QET51ER-476	"	"	"
C615	QET51HR-476	"	50 V	"
C616	QET51HR-476	"	"	"
C617	QET51HR-476	"	"	"
C623	QFM31HK-473	0.047 μF	"	Mylar
C624	QFM31HK-473	"	"	"
C701	QET51AR-107	100 μF	10 V	Electrolytic
C702	QET51CR-226	22 μF	16 V	"
C703	QET51HR-225	2.2 μF	50 V	"
C707	QET51CR-226	22 μF	16 V	Electrolytic
C801	QEW81HA-878	8700 μF	50 V	"
C802	QEW81HA-878	"	"	"
C803	QCE22HP-103	0.01 μF	500 V	Ceramic
C804	QCE22HP-103	"	"	"
C807	QET51CR-107	100 μF	16 V	Electrolytic
C808	QET51CR-107	"	"	"

Resistors

Item no.	Part no.	Rating		Description
R301	QRD141J-222S	2.2kΩ	1/4 W	Carbon
R302	QRD141J-222S	"	"	"
R303	QRD141J-104S	100kΩ	"	"
R304	QRD141J-104S	"	"	"
R305	QRD141J-104S	"	"	"
R306	QRD141J-104S	"	"	"
R307	QRD141J-821S	820Ω	"	"
R308	QRD141J-821S	"	"	"
R309	QRD141J-393S	39kΩ	"	"
R310	QRD141J-393S	"	"	"
R311	QRD141J-474S	470kΩ	"	"
R312	QRD141J-474S	"	"	"
R315	QRD141J-182S	1.8kΩ	"	"
R316	QRD141J-182S	"	"	"
R317	QRD141J-470S	47Ω	"	"
R318	QRD141J-470S	"	"	"
R319	QRD141J-104S	100kΩ	"	"
R320	QRD141J-104S	"	"	"
R321	QRD141J-471S	470Ω	"	"
R322	QRD141J-471S	"	"	"
R407	QVB8A2W-BF5V			Variable
R408	QVC4A2B-AF5V			"
R409	QRD141J-472S	4.7kΩ	1/4W	Carbon
R410	QRD141J-472S	"	"	"
R411	QRD141J-683S	68kΩ	"	"
R412	QRD141J-683S	"	"	"
R413	QRD141J-223S	22kΩ	"	"
R414	QRD141J-223S	"	"	"
R501	QRD141J-823S	82kΩ	"	"
R502	QRD141J-823S	"	"	"
R503	QRD141J-182S	1.8kΩ	"	"
R504	QRD141J-182S	"	"	"
R505	QRD141J-123S	12kΩ	"	"
R506	QRD141J-123S	"	"	"
R507	QRD141J-182S	1.8kΩ	"	"
R508	QRD141J-182S	"	"	"
R509	QRD141J-561S	560Ω	"	"
R510	QRD141J-561S	"	"	"
R511	QRD141J-562S	5.6kΩ	"	"
R512	QRD141J-562S	"	"	"
R513	QRD141J-472S	4.7kΩ	"	"
R514	QRD141J-472S	"	"	"
R515	QVC3A2C-215V			Variable
R516	QVC3A2C-215V	"	"	"
R601	QRD141J-222S	2.2kΩ	1/4W	Carbon
R602	QRD141J-222S	"	"	"
R603	QRD141J-104S	100kΩ	"	"
R604	QRD141J-104S	"	"	"
R605	QRD141J-101S	100Ω	"	"
R606	QRD141J-101S	"	"	"
R607	QRD141J-101S	"	"	"
R608	QRD141J-101S	"	"	"
R609	QRD141J-472S	4.7kΩ	"	"
R610	QRD141J-472S	"	"	"
R611	QRD141J-681S	680Ω	"	"
R612	QRD141J-681S	"	"	"
R613	QRD141J-683S	68kΩ	"	"
R614	QRD141J-683S	"	"	"
R617	See table on page 9			
R618	"			
R619	QRD141J-100S	10Ω	1/4 W	Carbon

Resistors

Item no.	Part no.	Rating		Description
R620	QRD141J-100S	10Ω	1/4 W	Carbon
R621	QRD129J-392	3.9kΩ	1/2 W	" ⚠
R622	QRD129J-392	"	"	" ⚠
R623	QRD129J-222	2.2kΩ	"	" ⚠
R624	QRD129J-222	"	"	" ⚠
R625	QRM024K-R22	0.22Ω	2 W	Metal plate
R626	QRM024K-R22	"	"	"
R627	QRM024K-R22	"	"	"
R628	QRM024K-R22	"	"	"
R629	QRD149J-101S	100Ω	1/4 W	Carbon ⚠
R631	QRD129J-4R7	4.7Ω	1/2 W	"
R632	QRD129J-4R7	"	"	"
R633	QRD129J-100	10Ω	"	" ⚠
R634	QRD129J-100	"	"	" ⚠
R635	QRD141J-122S	1.2kΩ	1/4 W	"
R636	See table below			
R637	QRD141J-391S	390Ω	1/4 W	Carbon
R638	QRD141J-391S	"	"	"
R641	QRD129J-221	220Ω	1/2 W	"
R642	QRD129J-221	"	"	"
R701	QRD141J-122S	1.2kΩ	1/4 W	"
R702	QRD141J-222S	"	"	"
R703	QRD141J-102S	1kΩ	"	"
R704	QRD141J-102S	"	"	"
R705	QRD141J-104S	100kΩ	"	"
R706	QRD141J-823S	82kΩ	"	"
R707	QRD141J-123S	12kΩ	"	"
R708	QRD141J-123S	"	"	"
R709	QRD141J-103S	10kΩ	"	"
R710	QRD141J-104S	100kΩ	"	"
R711	QRD141J-473S	47kΩ	"	"
R712	QRD141J-683S	68kΩ	"	"
R713	QRD141J-274	270kΩ	"	"
R714	QRD141J-472S	4.7kΩ	"	"
R715	See table below			
R716	"			
R717	QRD141J-123S	12kΩ	1/4 W	Carbon
R718	QRD141J-103S	10kΩ	"	"
R719	QRD141J-224S	220kΩ	"	"
R720	QRD149J-101S	100Ω	"	" ⚠
R721	QRD149J-100S	10Ω	"	" ⚠
R722	QRD141J-222S	22kΩ	"	"
R803	QRD141J-820S	82Ω	"	"
R804	QRD141J-820S	"	"	"
R805	QRG017J-821S	820Ω	1 W	Oxide metal ⚠
R806	QRG017J-821S	"	"	" ⚠

⚠ : Safety Parts (Uninflammable)

TXX-169A

Item no.	Part no.	Rating		Description
R617	QRD141J-221S	220Ω	1/4W	Carbon
R618	"	"	"	"
R636	QRD141J-122S	1.2kΩ	"	"
R715	QRD141J-102S	1kΩ	"	"
R716	"	"	"	"

TXX-169B

Item no.	Part no.	Rating		Description
R617	QRD141J-101S	100Ω	1/4W	Carbon
R618	"	"	"	"
R636	QRD149J-122S	1.2kΩ	"	" ⚠
R715	QRD129J-821	820Ω	1/2W	" ⚠
R716	QRD149J-122S	1.2kΩ	1/4W	" ⚠
	E48965-002			Fuse clip
	EWS015-005			Socket wire ass'y

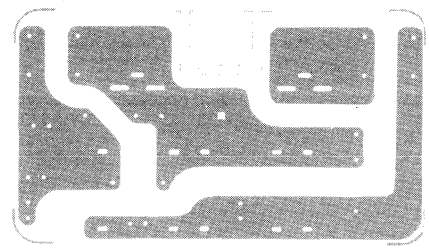
Others

Item no.	Part no.	Rating	Description
	E03572-007EJ		Speaker Terminal
	E43727-002		Tab
	QWT011-001		Tab Wire Ass'y
S401	QSP0249-108		Push-Switch
S404	QSP0249-109		"
S601	QSP0229-013		"
4PIN	E03591-42D		4pin-Pin Jack
6PIN	E03591-62D		6pin-Pin Jack
FRONT	EMN00YV-402A		4pin-Pin Jack (Front)
H.PHO	QMS6302-105		Headphones Jack
RY701	ESK6D24-212		Relay Switch

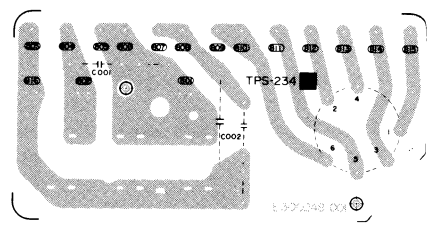
⚠ : Safety Parts

5-(3) TPS-214, 234
AC Fuse, Outlet & Voltage Selector P.C. Board Ass'y

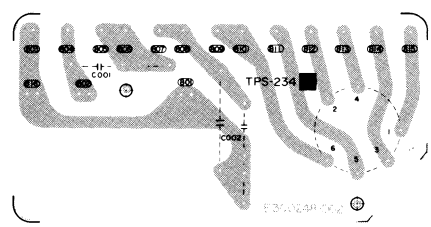
For U.S.A. & Canada TPS-214A (or B)



For Other Countries TPS-234A



For U.K., Europe & Australia TPS-234B (& CBS)



The following Part Numbers are listed on page 12.

Item no.	Description
1	Fuse clip ⚠
2	Tab
3	Tab
4	AC outlet ⚠
5	Capacitor ⚠
6	Line voltage selector ⚠
7	Bracket
8	Screw

⚠ : Safety Parts

7. Packing Materials and Part Numbers

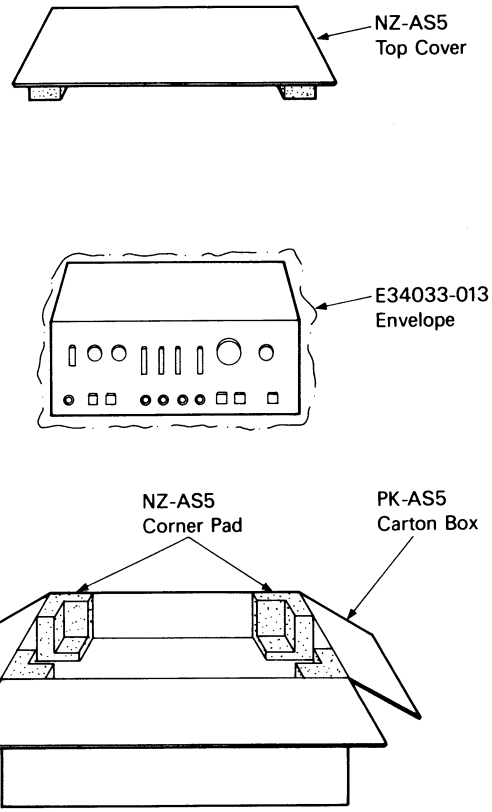


Fig. 11

8. Accessories List

	U.S.A.	Canada	U.K.	Europe	Australia	Other countries
Instruction book	E30580-726A	E30580-726A	E30580-726ABS	E30580-726A	E30580-726A	E30580-726A
JVC warranty card	BT20032	BT20025C	BT20013B	–	BT20029B	–
Service procedure	BT20023	–	–	–	–	–
Special reply card	BT20024B	–	–	–	–	–
Fuse	–	–	–	–	–	QMF51A2-1R0L or QMF51A2-2R0L
Envelope	E41202-2	E41202-2	E41202-2	E41202-2	E41202-2	E41202-2

9. TPS-214 & TPS-234 Parts List

Item No.	Description	U.S.A.	Canada	U.K.	Europe	Australia	Other Countries
5-(2)	P.C. Board Ass'y ⚠	TPS-214A	TPS-214B	TPS-234CBS	TPS-234B	TPS-234B	TPS-234A
1	Fuse Clip	E03675-004	E03675-004	–	–	–	–
2	Tab	E43727-001	E43727-001	E43727-001	E43727-001	E43727-001	E43727-001
3	Tab	E65508-001	E65508-001	E65508-001	E65508-001	E65508-001	E65508-001
4	AC Outlet ⚠	QMC0637-003	QMC0637-003	–	–	–	QMC0637-003
5	Capacitor ⚠	QCE22HP-103 (0.01μF, 500V)	QCZ9014-103 (0.01μF, 125V,AC)	QFZ9007-103BS (0.01μF)	QFZ9007-103 (0.01μF)	QFZ9007-103 (0.01μF)	QFZ9007-103 (0.01μF)
6	Line Voltage Selector ⚠	–	–	QSR0085-001BS	QSR0085-001	QSR0085-001	QSR0085-001
7	Bracket	–	–	E65586-001	E65586-001	E65586-001	–
8	Screw	–	–	SBSB3008Z	SBSB3008Z	SBSB3008Z	–

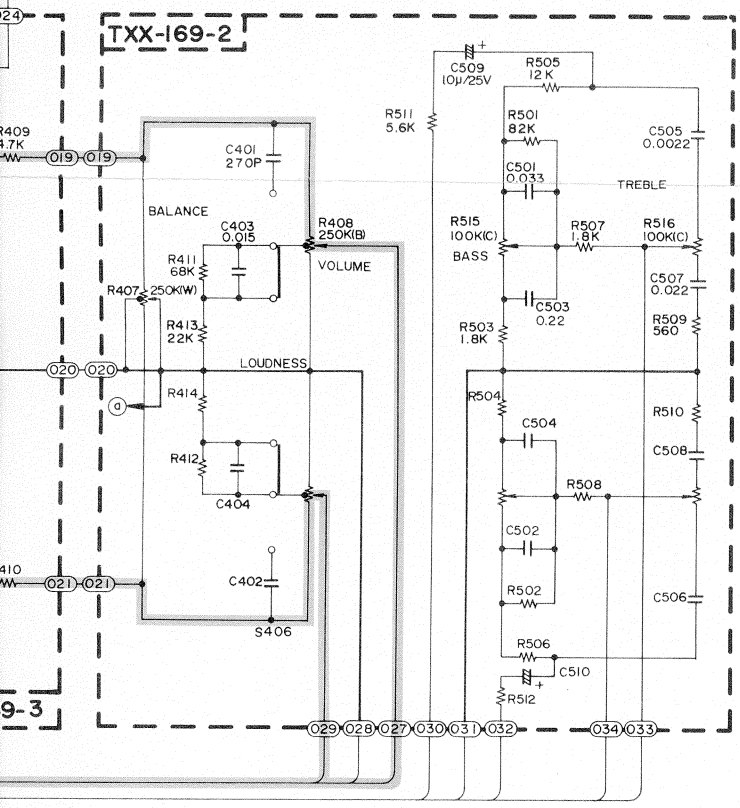
⚠ : Safety Parts

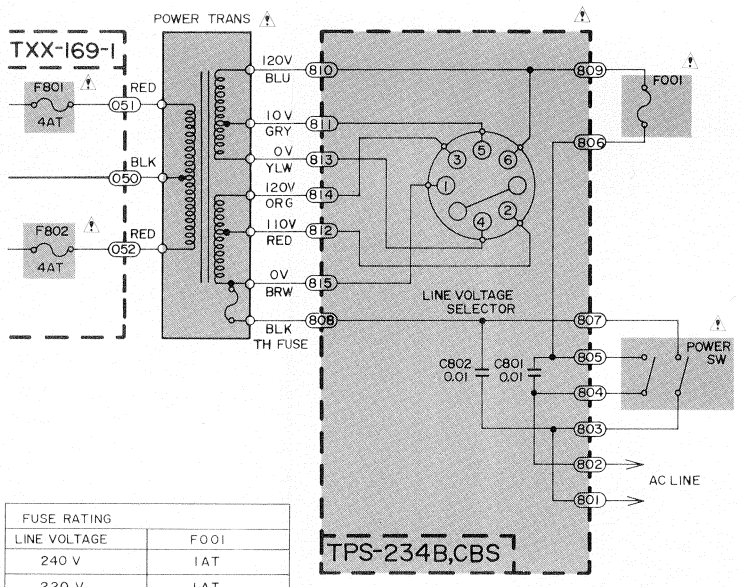
6. A-S5 Schematic Diagram

6. A-S5 Schematic Diagram

	R617	R636	R715	R716
USA & Canada	220	1.2k	1k	1k
UK., Europe Australia & Other Countries	10	△ 1.2k ⚠	▲ 820 ⚠	△ 1.2k ⚠

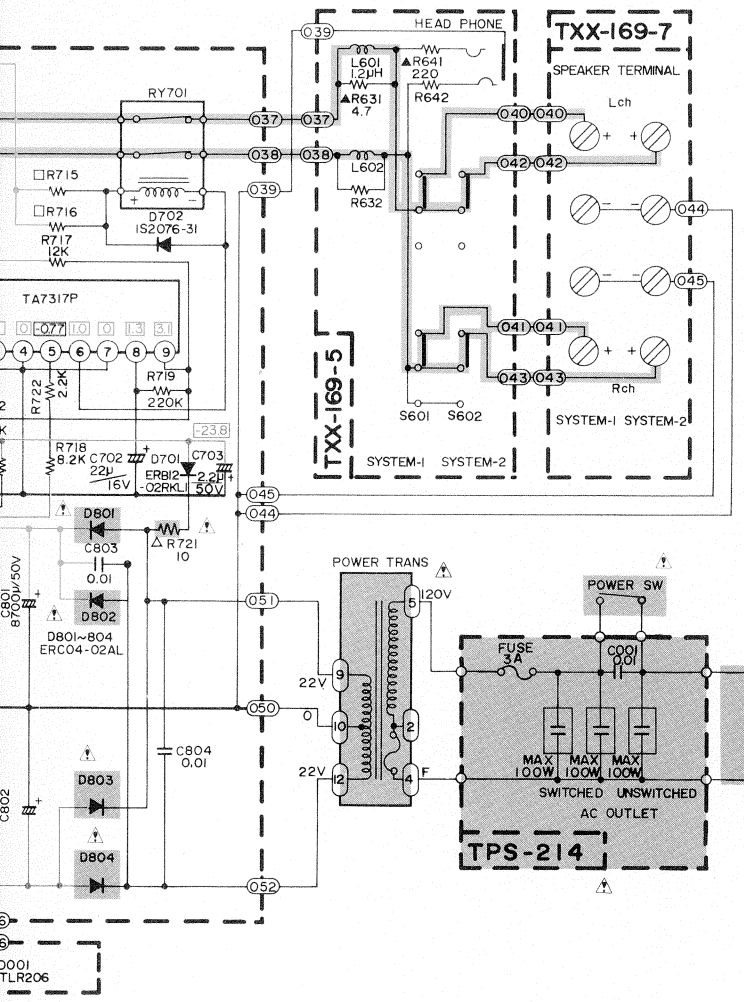
△UNF C, RES, (1/4W)
▲UNF C, RES, (1/2W)
○UNF O, M RES (1W)
●M,P, RES, (2W)

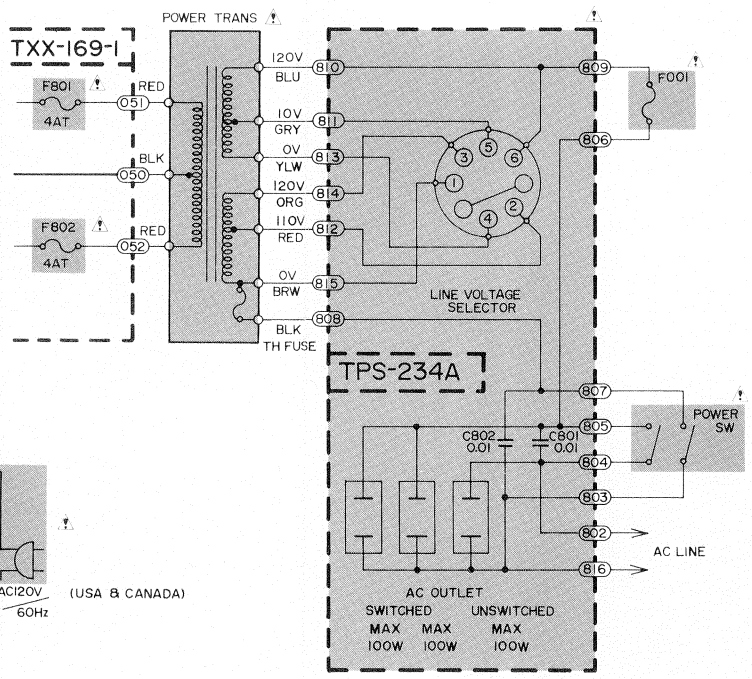




FUSE RATING	
LINE VOLTAGE	F001
240 V	1AT
220 V	1AT
120 V	2AT
110 V	2AT

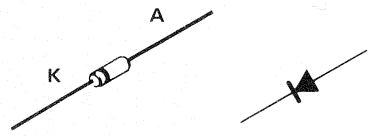
(FOR U.K., EUROPE & AUSTRALIA)



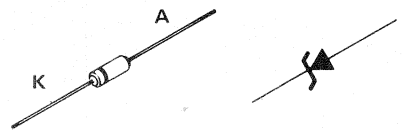


(FOR OTHER COUNTRIES)

Transistor, IC and Diode Lead Identification

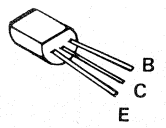


D701: ERB12-02RKL1
D702: 1S2076-31
D801~804: ERC04-02AL

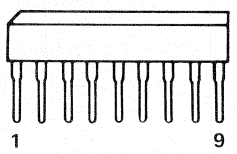


D601: WZ-071A
D805, 806: EQB01-15Z

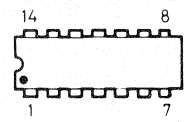
D001: TLR206



X601~X604: 2SC1775AV (F1)
X605~610, 703: 2SA872AV (E)
X611,612: 2SC2229 (Y)
X701, 702: 2SC1775AV (F)

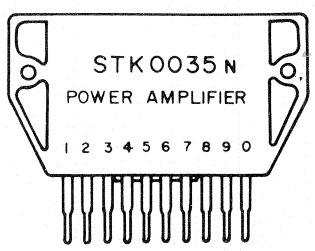


IC701: TA7317P



IC301: HA1452W

IC601, 602: STK0035N

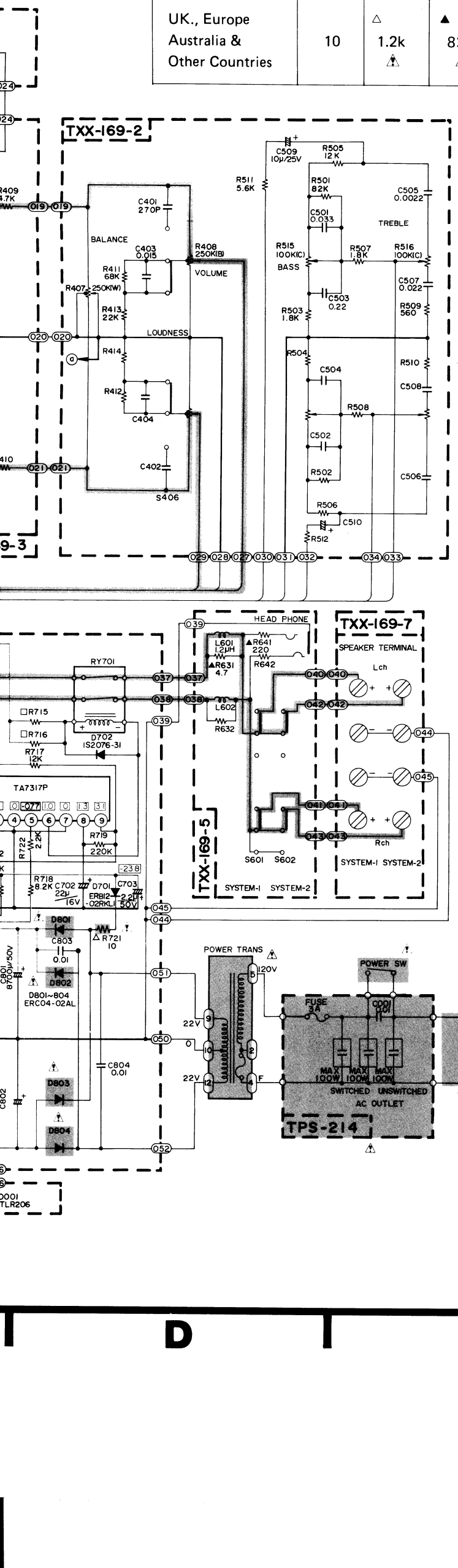


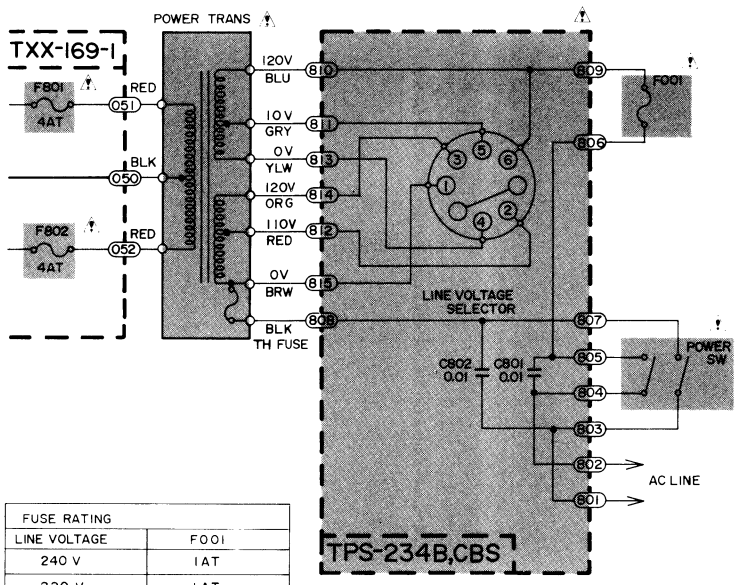
Notes:

1. Parts in red indicate transistors or ICs.
2. ▒▒ indicates signal path.
3. — indicates positive B power supply.
4. ▭ indicates positive voltage
5. ═ indicates negative B power supply.
6. ▭ indicates negative voltage
7. When replacing the parts in the darkened area ▒▒ and those marked with ⚠ , be sure to use the designated parts to ensure safety.
8. This is the standard circuit diagram. The design and contents are subject to change without notice.

	R617	R636	R715	R716
USA & Canada	220	1.2k	1k	1k
UK., Europe Australia & Other Countries	10	△ 1.2k ⚠	▲ 820 ⚠	△ 1.2k ⚠

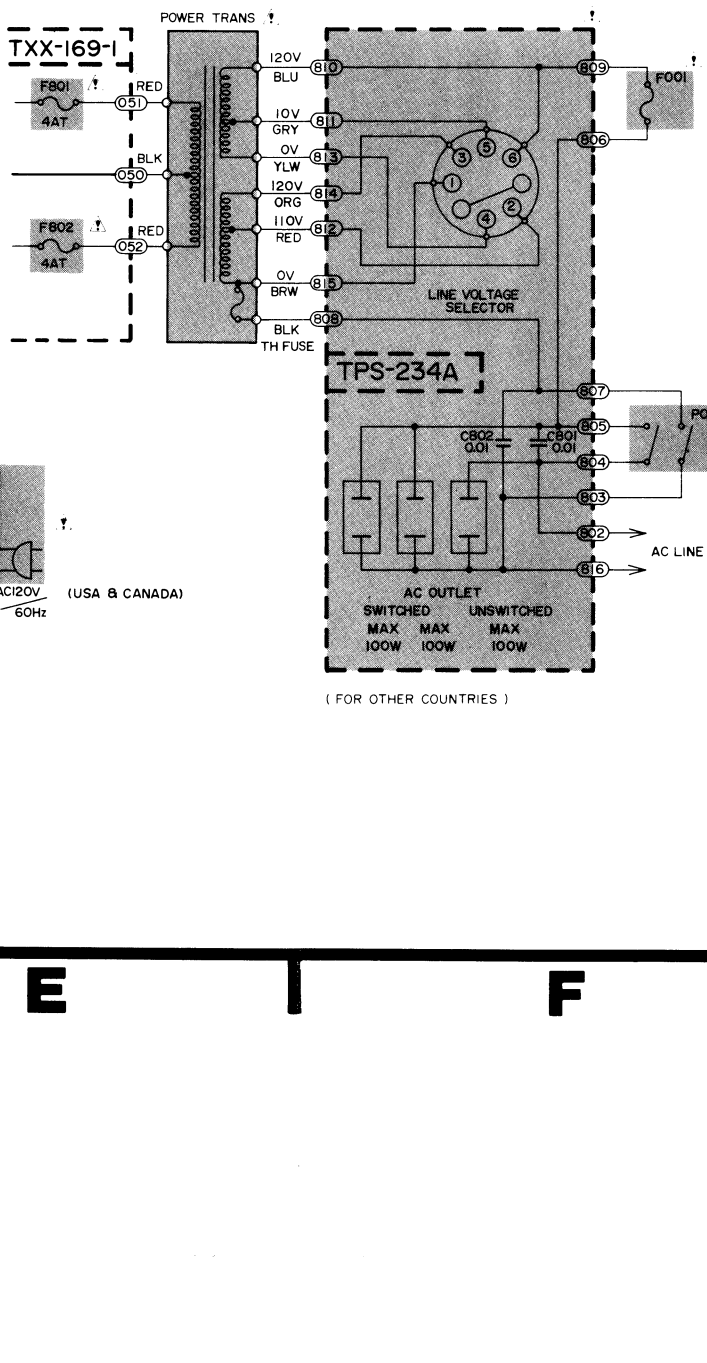
△UNF C, RES, (1/4W)
▲UNF C, RES, (1/2W)
○UNF O, M RES (1W)
●M,P, RES, (2W)



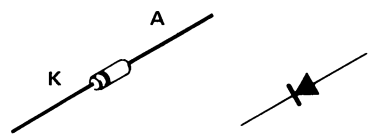


FUSE RATING	
LINE VOLTAGE	F001
240 V	1AT
220 V	1AT
120 V	2AT
110 V	2AT

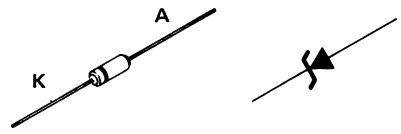
(FOR U.K., EUROPE & AUSTRALIA)



Transistor, IC and Diode Lead Identification

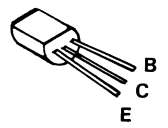


D701: ERB12-02RKL1
D702: 1S2076-31
D801~804: ERC04-02AL



D601: WZ-071A
D805, 806: EQB01-15Z

D001: TLR206



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X611,612: 2SC2229 (Y)
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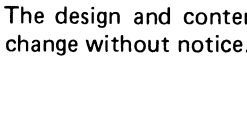

IC701: TA7317P

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IC601, 602: STK0035N

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